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COMPLETE SPECIFICATION

Polishing Composition

We, SIMONIZ COMPANY, a corporation organized under the laws of the State of Delaware, United States of America, of 2100 South Indiana Avenue, City of Chicago, State of Illinois, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a polishing composition that is particularly adapted for use on furniture and on automobiles.

Specifically the present invention provides a polishing composition in the form of a solid cake, containing 10—16 parts of a wax consisting of oxidized micro-crystalline, Fischer-Tropsch or montan wax or any combination of these and substantially free of vegetable and animal waxes; 4—8 parts of solid polyethylene; 1—11 parts of paraffin wax; and solvent for the first-mentioned wax, the polyethylene and the paraffin wax, all said parts being by weight of the composition, and said composition having a total solids content of 20—30% by weight.

The present invention further provides a method of making a polish composition of the above type, comprising: mixing from 10—16 parts of the first-mentioned wax and from 4—8 parts of solid polyethylene with from 38—50 parts of solvent; heating to a temperature of 200—210° F. with the agitation until the said wax and polyethylene are dissolved; adding from 1—11 parts of paraffin wax at said temperature, adjusting the temperature of the resulting mixture to a temperature that is above the solidificaion temperature thereof; adding 37—25 parts of solvent at 65—75° F. in a stream with agitation until the temperature is from 145—155° F., the total amount of solvent being 70—80% by weight, and then cooling to room temperature, all said parts being by weight of the composition.

[*Price* 4s. 6d.]

The polishing composition of this invention is in cake form and uses non vegetable or animal waxes as has been true of prior polishes used to give a hard polish finish. The use of these vegetable or animal waxes raised many difficulties, however, as being natural products successive batches have often varied widely in chemical properties. Thus it has been found to be difficult to set up a manufacturing procedure that would produce the same high quality results at all times because of these differences.

The paste composition of this invention avoids these difficulties of vegetable and animal waxes.

It has heretofore been difficult to make a wax paste polishing composition that will be a smooth easily applied cake that will be free of cracks and other deformations in the container. This problem has been overcome in the composition of this invention not only by reason of the materials used but also by reason of the method of making the composition.

One of the features of this invention therefore is the provision of an improved paste polishing composition using only mineral and synthetic ingredients.

Another feature of the invention is to provide an improved method of making a wax paste polishing composition in which the resulting cake is smooth and uniform without cracks and similar deformations in the container.

The polishing composition of this invention utilizes only manufactured ingredients whose characteristics can be carefully controlled within close tolerances for successive batches. The composition is a non-granular cake that is firm and smooth in the container and that is substantially free of cracks and similar surface deformations. The composition when applied to furniture or automobile bodies produces a high gloss with relatively

small effort and the polish film has extremely long life.

The non-vegetable and non-animal wax operates primarily as a gloss producer, the solid polyethylene operates as a gel former or paste producing ingredient, and the paraffin wax operates not only as a gloss producing ingredient but also serves to control the rate of drying. The solvent is preferably a hydrocarbon solvent. The preferred total solids content is 25%. All parts and percentages set out herein are by weight.

The cake is non-granular, firm and smooth and is substantially free of cracks and similar surface deformations in the container. The amount of solvent used is sufficient to dissolve the first-mentioned wax and polyethylene at this temperature. Any desired dye to give the colour may then be added at this temperature and mixed in. The paraffin wax is added to the mixture while the mixture is at a temperature of 200—210° F. (93—99° C.). The addition of the room temperature paraffin wax lowers the temperature of the resulting composition to a temperature that is above the solidification temperature. The remaining solvent at room temperature (such as 60—90° F. (15—32° C.)). is then added slowly with agitation. After the addition of the remaining solvent the temperature is adjusted to 145—155° F. (63—68° C.) The composition is then poured into containers, the containers are covered and the composition is cooled slowly to room temperature.

The 145—155° F. (63—68° C.) finishing temperature is preferred because if the finishing temperature is too high the resulting cake tends to crack and to become too hard. If the finishing temperature is too low the cake becomes somewhat soft and mushy. The slow cooling period preferably extends at least 30 minutes after the composition is poured in the containers in order to prevent excessive contracting of the cake with resulting cracking. The solvent is divided in two portions with 50% or more being mixed with the substantially animal- and vegetable-wax-free wax and polyethylene in the first step and the remainder being added as indicated above in order that the relatively cold solvent will aid in cooling the composition. The proportion of the solvent used at the beginning of the process need be only enough to dissolve the said wax and polyethylene at the temperature indicated.

In one example of making a polishing composition according to this invention 13 parts by weight of Crown 23 wax (oxidized microcrystalline wax) made by Bareco Wax Co., Div. of the Petrolite Corporation and 6 parts of granular solid polyethylene were mixed with 45 parts of Oleum Spirits and the mixture heated to a temperature of 200—210° F. (93—99° C.) with stirring until the wax and polyethylene had dissolved. At this point 0.003 part of Oil Brown Y dye and 0.004 part of Oil Blue Black D dye were added. The composition was then removed from the heat. Immediately 6 parts of paraffin were added while the composition was at the temperature of 200—210° F. (93—99° C.). The resulting mixture was agitated and the temperature was found to be at 175° F. (80° C.) which is above the temperature where the ingredients begin to come out of solution. 30 parts of Oleum Spirits at 70° F. (21° C.) were then added slowly with agitation. This caused the temperature to drop to the finishing temperature of 150° F. (65° C.). The composition was then poured into cans, covered and cooled slowly to room temperature. The resulting composition was found to be in the form of a smoth non-granular cake that was substantially free of cracks and similar deformations.

The solvent that is used is a volatile solvent. The preferred solvents are hydrocarbon solvents and are those in which the essential constituents are freely soluble at elevated temperatures. For example, mineral spirits may be used satisfactorily as the solvent in the polishing composition of this invention and a satisfactory mineral spirits solvent is marketed by the Standard Oil Company (Indiana) under the Registered Trade Mark Oleum Spirits. The solvent is preferably included in the polishing composition of this invention in an amount of about 75% by weight of the composition.

The above example was repeated twice, first using Fischer-Tropsch wax (Petronauba H made by Bareco Wax Co. Division of Petrolite Corporation) and then using montan wax in place of the oxidized microcrystalline wax. Similar results were obtained.

WHAT WE CLAIM IS:—

1. A polishing composition in the form of a solid cake, containing 10—16 parts of a wax consisting of oxidized microcrystalline, Fischer-Tropsch or montan wax or any combination of these and substantially free of vegetable and animal waxes; 4—8 parts of solid polyethylene; 1—11 parts of paraffin wax; and solvent for the first-mentioned wax, the polyethylene and the paraffin wax, all said parts being by weight of the composition, and said composition having a total solids content of 20—30% by weight.

2. A polishing composition according to Claim 1, containing 13 parts of the first-mentioned wax; 6 parts of solid polyethylene; 6 parts of paraffin wax; and 75 parts of solvent for the first-mentioned wax, the polyethylene and the paraffin wax, all said parts being by weight of the composition and the composition having a solids content of 25% by weight.

3. The method of making a polishing composition according to Claim 1, comprising: mixing from 10—16 parts of the first men-

tioned wax and from 4—8 parts of solid polyethylene with from 38—50 parts of solvent: heating to a temperature of 200—210° F. with agitation until the said wax and polyethylene are dissolved; adding from 1—11 parts of paraffin wax at said temperature, adjusting the temperature of the resulting mixture to a temperature that is above the solidification temperature thereof; adding 37—25 parts of solvent at 65—75° F. in a stream with agitation until the temperature is from 145—155° F., the total amount of solvent being 70—80% by weight, and then cooling to room temperature, all said parts being by weight of the composition.

4. A polishing composition according to Claim 1 and substantialy as herein described.

5. A method of making a polishing composition according to Claim 3 and substantially as herein described.

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